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ABSTRACT

This paper identifies and describes specific applications of knowledge from other disciplines to adult education. It is observed that the concept of adult educators' borrowing from other fields has been widely discussed in both North and South America. Verner's criteria for selecting usable material are cited. The following four general topics of interest to adult educators are identified as being informed by knowledge from other disciplines: (1) learning and instruction, (2) participation and persistence, (3) program planning, and (4) research. Eleven illustrative kinds of questions in the four general topics identify areas in which the adult educator could look to research in other disciplines for varying degrees of assistance. Finally, illustrations are provided to show more specifically how other disciplines have contributed knowledge and assistance in the four general topical areas. In this section of the paper, information on anthropology, psychology, sociology, and other fields have provided useful information and models that have greatly enriched the field of adult education. (KC)

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THEORY, INNOVATION, AND PRACTICE IN ANDRAGOGY NO. 3

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THEORETICAL FOUNDATIONS OF ADULT EDUCATION: BORROWINGS FROM OTHER DISCIPLINES

Huey B. Long

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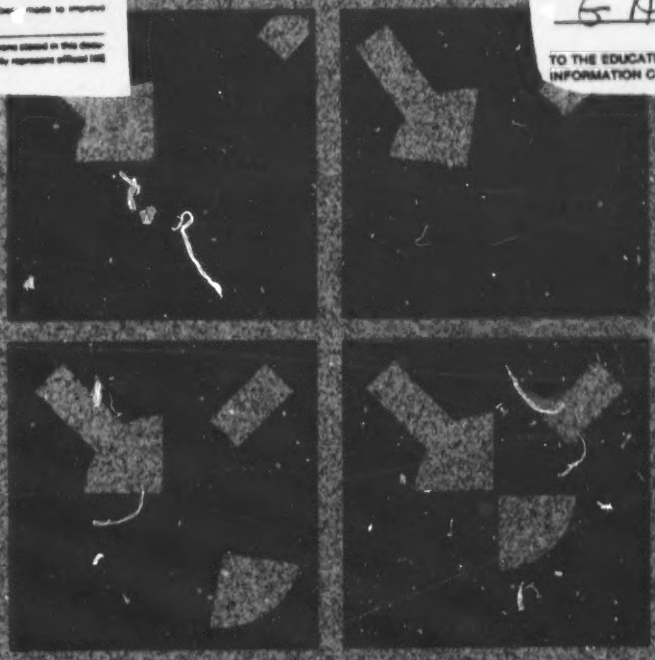

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FOREWORD

In this, the third in our monograph series, we have called upon Dr. Huey B. Long to share his insight and experience in helping us more clearly understand how various disciplines in the social and behavioral sciences have contributed to the body of knowledge and conceptual formulations which underlie the theory, research, and practice in andragogy.

Dr. Long is widely recognized for his scholarly work in documenting the history of adult education, in adult learning research, and in analyzing the role and use of theory and research methodologies to improve the practice of adult education. He has served as President of the Adult Education Association of the U.S.A. and as consulting editor of the journal *Adult Education*. Presently, Dr. Long is Professor of Adult Education at The University of Georgia.

As implied in the monograph, the study of adult education is a relatively new endeavor. As recently as twenty years ago most research-based knowledge addressed to questions and problems in adult education was acquired by borrowing, reformulating, and adapting theoretical constructs and research findings generated in the disciplines of psychology, social psychology, sociology, anthropology, and related fields. However, over the past two decades the number of professional positions in adult education in the U.S. has increased from 20 to more than 200. As a result, we have witnessed a flurry of university-based research and along with it the development of the theoretical underpinnings of the field itself. For an in-depth analysis of the state of the art in the evolving science of andragogy, the reader is invited to look at *Redelivering the Discipline of Adult Education*, by Robert Boyd and Jerold Apps, and *Changing Approaches to Studying Adult Education*, by Huey B. Long, Roger Hiemstra, and Associates. Both volumes appear as part of the 1980 Handbooks in Adult Education Series published by Jossey-Bass, San Francisco.

Felix Adam and George F. Aker
Series Editors

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1

Understanding and predicting the behavior of adults are important and desirable goals that have persisted through time. Recent historians speculate that, even before adult education became a field of study and practice, philosophers, theologians, and others applied their disciplines to better understand the adults they served. While a historical treatment of the topic should prove eminently rewarding, this discussion is limited to more recent times.

The idea that established disciplines such as anthropology, biology, chemistry, history, philosophy, psychology, and sociology can inform the practice of adult education has been widely discussed in the literature of both North and South America. Jensen (1964) addressed this topic directly almost twenty years ago. He noted that adult education develops a unique body of knowledge suited to its purposes through two methods:

1. Experiences gained from coping with problems of practice lead to the formulation of principles or generalizations which provide guides for future practice.

2. Knowledge which has been developed by other disciplines is borrowed and reformulated for use in adult education (p. 105).

Adult educators have generally looked to other disciplines for their theoretical foundations. As Jensen (1964) and the Commission of the Professors of Adult Education (1961) noted, adult education has been advanced through the borrowing and adapting of knowledge, theory, and research technology from other fields. While acknowledging this dependence, however, the Commission of Professors cautioned that not all material from the social sciences is appropriate to adult education and suggested that adult education should not only test the applicability of existing knowledge but discover for itself new knowledge or new relationships within existing knowledge. According to the Commission, adult education is original in developing special knowledge about the unique characteristics of adults as learners. Yet, the development of adequate knowledge about adults as learners and about the administration of adult learning opportunities requires the involvement of far more researchers than the relatively few who are now identified directly with the field

of adult education. The Commission also stated that our knowledge of adult education is limited because subjects of interest to adult educators were often of secondary interest to other educators and social scientists and because there was no mechanism for systematically planning, stimulating, and disseminating adult education research (Long, 1980).

The dependence of adult education on other fields within education and on the social sciences came about for several reasons. First, it made sense for a fledgling field to use the knowledge developed by its parents and relatives. Second, the early professors had to come from somewhere, and in this case somewhere was usually education and the social sciences. Third, because the group of scholars involved was quite small—only twenty-four professors were listed on the Commission's 1961 roster—their resources were necessarily spread very thinly.

Another probable cause was the great diversity of the field. Indeed, Kreitlow asked in 1960 whether this diversity was such that research might always have to be borrowed. At that time Kreitlow considered a negative answer possible, believing that the borrowing might continue only until adult education was more clearly defined. But in 1975, when he spoke on a panel session at the Adult Education Research Conference, he seemed to have accepted the view that adult education would primarily build on a foundation of research in the social science disciplines by interpreting the implications of that research for adult education.

Castronuovo and Campos (1978) proposed that adult educators should be knowledgeable of the following approaches to studying adults: anthropological research, socio-economic research, behavioral research, comparative research in adult education, and program evaluation of adult education.

TRANSLATING KNOWLEDGE OF OTHER DISCIPLINES INTO USABLE FORMS

Borrowing knowledge from other disciplines is seldom easy. Much of what other disciplines have investigated is irrelevant to adult education, or the investigations may be so narrow and artificial that findings are neither applicable nor usable. The adult educator is therefore forced to screen the existing theory and research of other disciplines and sift out whatever may relate to questions similar to those he encounters in his practice. Whenever he encounters such relevant material, successful borrowing theoretically becomes possible. However, according to Jensen (1964), this cannot be accomplished in fact unless the adult educator is able to translate such theory and research findings into propositions or principles that specify how certain variables are supposed to function if specified outcomes are to be achieved. The task of the adult educator is to ensure that the variables affecting individual behavior, which relate to adult education, function in ways that facilitate the acquisition of desired patterns of perceptual, conceptual, emotional, and motor behaviors.

Jensen notes that the first step in borrowing is to screen the theory and research of other disciplines to identify areas that in some way appear related to the problems of adult education practice. An examination of a given discipline reveals the scope of what its practitioners investigate, parts of which may be relevant to adult education practice and parts of which are irrelevant, too narrow, or restricted. To determine what is relevant requires: (1) the identification of a given problem of practice in adult education; (2) an identification of the kinds of phenomena inherent in this kind of problem of practice; and (3) an examination of the theory and research findings of various disciplines to determine which disciplines have investigated phenomena inherent in this particular problem of practice.

The question then arises: How does the adult educator reorganize borrowed theoretical and research results to make them usable for his practice? The primary task in such reorganization is to apply the theoretical concepts from other disciplines to the given problem of practice identified in step one above and then to determine the effectiveness of this application in dealing with the problem.

Verner (1979) was one of the few educators of adults who specified criteria for identifying material that has the potential to be borrowed and reformulated. According to Verner, such material has the following characteristics:

1. It helps to explain some phenomenon encountered in the field or discipline.

2. It helps in the solution of practical problems encountered in the field.

3. It can be translated into operational principles that will contribute to greater efficiency and effectiveness in adult educational programming.

4. It contributes to the development of essential attitudes, values, or skills important to the field.

5. It can be reformulated so that it is applicable to adult education.

6. It is derived solely from adult populations.

7. It relates to systematic education for adults.

The scholars identified above constitute only a representative sample of the large number of adult educators who have commented favorably on the use of theory and knowledge from other disciplines in adult education.

OBJECTIVES

Following Jensen's suggestion, it is our purpose here to identify several specific areas of adult education that have been strengthened through the process of borrowing and reformulating theory and knowledge from other disciplines.

General topics of interest to adult educators that have been addressed by other disciplines include the following:

1. learning and instruction

2. participation and persistence

3. program planning

4. research

Each of the above general topics includes additional numerous subtopics, some of which have been addressed by a variety of theories derived from other disciplines. For example, I have recently identified at least five different models that have been developed for the study of participation and/or persistence in adult education (Long, 1979). It is impossible to exhaustively inventory the different theoretical frameworks in use. Consequently, it is even more unlikely that this paper can do more than illustrate how in specific instances adult educators have turned to other disciplines for help in understanding and explaining critical phenomena.

QUESTIONS ON SELECTED TOPICS

Learning and Instruction

Adult educators have depended heavily upon psychology and educational psychology for answers to questions concerning learning and instruction. A few examples in this area include the following:

1. Questions about the ability of adults to learn at different ages. The classical work in this area is E. L. Thorndike's volume (1928). Since then numerous investigators, including Irving Lorge, William Owens (1966), Nancy Bayley and M. H. Oden (1955), Paul Baltes and Werner Schaie (1974), have added to the research. Adult educators such as Alan Knox have based research on the investigations concerning adult learning ability by the above psychologists and others.

2. Questions about cognitive development. The Swiss biologist, Jean Piaget, has made a significant contribution to one explanation of cognitive development. Huey B. Long (1979) and several of his students, Ackerman, Kuhn, McCrary, and Mirza, along with others, have used Piaget's concepts to study adult cognitive levels.

3. Questions about the learning process and how teaching activities are best coordinated with the process. A large number of investigators have been concerned with this question. Some of those who have studied learning and teaching, and whose work has influenced adult education practice, include Ausubel, Bruner, Gagné, Skinner, and Woodruff, among others. Adult educators interested in this topic include Robert Boyd (1968) and Mary Jane Even (1981).

Participation and Persistence

In a similar manner, educators of adults have turned to psychology and sociology in their efforts to be informed about participation and persistence in adult education. Some of the kinds of questions for which information has been collected from the fields of anthropology, psychology, and sociology include the following:

1. Questions concerning what kind of adults engage in educational activities and why. Investigators of these questions have employed research procedures used in the fields of statistics and sociology. Most of the research has been conducted by

those considered to be adult educators, such as Cyril Houle (1961), Mohammed Douglah (1970), Stan Grabowski (1973), and others.

2. *Questions concerning what kinds of phenomena encourage or hinder adult participation in educational activities.* This question has been studied in the same manner as the previous one. It has also been investigated through the use of anthropological and ethnological procedures by Catherine Marienau and Karla Klinger (1977).

3. *Questions concerning persistence in adult education activities.* Researchers interested in this question have also turned to psychology to identify personality and motivational variables associated with participation and persistence. Investigators include George S. Davis (1970), Gary Dickinson and Coolie Verner (1979), and Russell Wilson (1980).

Program Planning

Program planning in its broadest sense includes such subprocesses as determining educational needs, establishing learning objectives, selecting appropriate learning activities and resources, conducting the learning-teaching activity, and evaluating the process and/or impact. Knowledge of each of these areas and related topics has been influenced by information derived from other disciplines. Questions such as the following represent areas of curiosity for adult educators:

1. *What are the best ways to plan educational programs for adults?* This question seems to be almost wholly in the province of adult education. Research in this area has been influenced to a limited degree by curriculum research based on the work of Ralph Tyler and others (Walker, 1971). Investigators associated with Indiana University have intensively studied one particular approach to planning (Stubblefield, 1975).

2. *How do we, or how should we, involve the learners and/or their representatives in the planning process?* Research and theory in social and industrial psychology seem to have influenced thinking on this question. Homer Kempfer (1965) is credited with one of the better early studies among adult educators on the topic. Others who have looked at the direct involvement of the learner in planning and operating the learning activity include Gene Welden, William J. Cole, Jr., and

J. C. Glass (1977), and Kathy Vedros and Mary Pankowski (1980).

3. *What difference does it make when the learners participate in the planning and operation of the learning process?* This question is closely related to the one above, and the same investigators have sought to determine the effect of learner involvement on achievement, attitudes, and persistence.

Research

The practice of research in adult education is greatly influenced by the research methods of other disciplines. To my knowledge, there is no research procedure unique to adult education. The most popular research method in adult education is descriptive survey research, which is customarily identified as a sociological research method, even though it had its genesis before sociology emerged as a distinct discipline. Similarly, psychology has given birth to psychometrics, which are used for extensive purposes from the assessment of intelligence to the attribution of abnormality. Anthropology, ethnology, history, and philosophy also provide theoretical and knowledge foundations for other approaches to adult education research. Some questions related to adult education research methodology, which are addressed by the disciplines cited above, include the following:

1. *What are the best ways for investigating selected adult education concerns?* Individuals who have examined this question usually have been influenced by different value orientations derived from their personal philosophical positions. Adult educators who have addressed this question include Apps (1972) and Long (in press).

2. *How valid and reliable are findings obtained when selected research procedures are used?* This question has been addressed in specific instances by critical reviews. The best general review on this topic is the 1959 work of Edmund des Brunner and Associates.

The eleven preceding questions are illustrative of the range and kinds of questions adult educators have that can be answered in part by knowledge derived from other disciplines. Even as it is nonproductive to identify and list every adult education question addressed directly or indirectly by work in other fields, it is also impractical to identify every instance in

which our field has been enriched by constructs and concepts from other disciplines. Therefore, in the following pages some illustrative examples are given for the purpose of stimulating awareness of the sources of some of our foundations.

KNOWLEDGE FROM OTHER DISCIPLINES

Learning and Instruction

Adult educators' concepts of learning and teaching seem to be derived from a variety of scholars and their psychological perceptions of mankind. Examples include the following:

1. The mechanistic view as represented by the work of Guthrie, Thorndike, Watson, and Skinner.
2. The humanistic view as represented by the thinking of Maslow and Rogers.
3. The personological view as represented by the personality psychologists, including Allport, Horney, and Rotter.
4. The psychoanalytical view as represented by Freud and Jung.
5. The Gestalt perception as represented by Lewin.
6. The developmental concept as represented by Piaget.

One or more of these views is included in most discussions of the adult learning-teaching transaction. Adult educators, in conducting studies of the learner, use formulations and research designs inspired by these views. Applications range from investigations of behavior modification reinforcement schedules to social learning theoretical constructs. In addition, some of the same investigators have influenced adult education studies in other areas such as participation and persistence.

Participation and Persistence

Explanations for participation and/or persistence in adult educational activities are usually cast in one of the four following frameworks:

1. personal explanations
2. social explanations
3. institutional explanations
4. some combination of the above

In each of the above frameworks, the orientation seems to be informed by and based upon nomological structures derived from the fields of psychology, socio-psychology, and sociology. Most of the studies identified by this author, however, have been traced to two basic theoretical models: a general social

learning model as explicated by Sahakian (1970) and Lewin's field theory (Hall and Lindzey, 1957). Through an extensive literature review I have identified five different models for the study of adult participation and persistence in education. Each of these models ultimately is based on Lewin or the social learning model (Long, in press).

Program Planning

Different processes involved in the program planning task of adult educators are informed by knowledge created by and derived from diverse disciplines. For example, the process of needs assessment is informed by philosophy, psychology, sociology, and psychometrics.

Philosophy comes to bear on the process because of potential conflicts between what the individual identifies as a need and needs identified by third-party evaluators. Philosophy also underlies the perception of the purpose of adult education as espoused by the institution or individual conducting the assessment.

Psychology contributes knowledge that helps adult educators define the terminology in use to describe needs as normative, real, ascribed, prescribed, or felt.

Sociology and psychometrics have provided a knowledge base for the selection of procedures to obtain and interpret knowledge of needs.

Similar observations are appropriate to the other procedures involved in program planning activities. For example, techniques from the field of marketing are now being used extensively in the United States to develop strategies to market adult education programs.

Research

Research in adult education is enriched by knowledge from other disciplines in two ways. The first concerns the knowledge base required to conceptualize and ask the right kinds of questions concerning adult education topics. For example, educational psychology has produced data that indicate individuals have particular learning styles, levels of cognitive development, and personality characteristics such as locus of control, levels of dogmatism, unique self-concepts, and so forth. With such a range of potential for individual differences

represented within any learning group, the educator is concerned with the mini-max principle—how to obtain maximum results from the maximum number of learners with the minimum exploitation of scarce resources.

The second manner in which research in adult education is strengthened by progress in other disciplines concerns research methods. While topics studied by adult educators often may be unique to the field, the research procedures are adapted from the fields of statistics, psychometrics, history, anthropology, and philosophy, to name a few.

Anthropological and ethnological procedures, for example, have been used to study adult participation in education. Grounded theory has been used to study numerous questions. The methods of history have been applied to develop knowledge of trends and development of the field. Philosophy has recently been used in an analytic manner to clarify important concepts.

SUMMARY

This paper has identified and described specific applications of knowledge from other disciplines to adult education. It was observed that the concept of adult educators' borrowing from other fields has been widely discussed in both North and South America. Verner's criteria for selecting usable material were cited.

The following four general topics of interest to adult educators were identified as being informed by knowledge from other disciplines:

1. learning and instruction
2. participation and persistence
3. program planning
4. research

Eleven illustrative kinds of questions in the four general topics identified areas in which the adult educator could look to research in other disciplines for varying degrees of assistance.

Finally, illustrations were provided to show more specifically how other disciplines have contributed knowledge and assistance in the four general topical areas. In this section of the paper it was noted that anthropology, psychology, sociology, and other fields have provided useful information and models that have greatly enriched the field of adult education.

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